

IN THE CLAIMS

Please amend claims 38, 40, 42, 45, 47 and 49 as set forth below.

1. - 37. (Canceled)✓

38. (Currently Added) An energy and power interchange system for exchanging energy and power between different energy systems located on an energy path around the pacific ocean, the energy and power interchange system comprising:

a first system located on said energy path and including a first country, the first system including an energy generator which generates transmittable energy using an energy source, ~~and including measuring equipment located near a border of said first country and on said energy path for measuring an amount of energy transmitted across said border via said energy path, and~~

a second system located on said energy path and including a second country, the second system including an energy generator which generates transmittable energy using an energy source, ~~and including measuring equipment located near a border of said second country and on said energy path~~

~~for measuring an amount of energy transmitted across said border via said energy path,~~

41 measuring equipment located on said energy path
between said first system and said second system for measuring
the amount of energy transmitted from said first system to
said second system,

wherein energy is transmitted from said first system to said second system via said energy path, and wherein settlement for said transmitted energy is determined based upon an amount of energy transmitted as measured by said measuring equipment ~~in each of said first and second countries.~~

39. (Previously Added) The energy and power interchange system of claim 38, wherein said first system is an East Asia system and said second system is an Australia system and said energy path links these systems to a North America system via the Bering Strait, and to a South America system through the Antarctic continent.

40. (Currently Amended) The energy and power interchange system according to claim 38,

41 wherein, in said first country, said energy source used by said energy generator and said transmitted energy amount are controlled in response to said energy amount measured by said measuring equipment ~~in each of said first and second countries~~, and

wherein energy is transmitted from said first country to said second country in response to a requirement of said second country.

41. (Previously Added) The energy and power interchange system according to claim 38, wherein each portion of said energy path is selected from a group consisting of an alternating current system, a direct current interconnecting system, a pipeline, a transport path and an electric wave path.

42. (Currently Amended) The energy and power interchange method according to claim 38, wherein control parameters of each of said first and second systems including said energy generators are changed and an energy transmitting direction is decided in response to the transmitted energy amount measured by the measuring equipment ~~of each of said first and second countries~~.

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43. (Previously Added) The energy and power interchange system according to claim 38, wherein energy is transmitted between said first and second systems depending upon factors including climate and time of day, and

wherein the settlement for the interchanged energy amount is performed by conversion to fuel so as to simplify settlement between various currency systems.

44. (Previously Added) The energy and power interchange system according to claim 38, further comprising interconnection administration equipment which establishes contracts between respective systems and forwards a control command to interchange administration equipment of the respective systems so as to carry out interchange of electric power and wherein said interconnection adjustment equipment receives measurement values of interchanged electric power from the measuring equipment and transmits such information to the interchange administration equipment of the respective systems in order to permit settlement.

45. (Currently Amended) An energy and power interchange system for exchanging energy and power between different

energy systems located on an energy path around the pacific ocean, the energy and power interchange system comprising:

61 a first system located on said energy path and including a first country, the first system including an energy generator which generates transmittable energy using an energy source, ~~and including measuring equipment located near a border of said first country and on said energy path for measuring an amount of energy transmitted across said border via said energy path,~~

a second system located on said energy path and including a second country, the second system including an energy generator which generates transmittable energy using an energy source, ~~and including measuring equipment located near a border of said second country and on said energy path for measuring an amount of energy transmitted across said border via said energy path,~~ and

measuring equipment located on said energy path between said first system and said second system for measuring the amount of energy transmitted from said first system to said second system,

a direct current transmission system which interconnects said first system and said second system,

91 wherein energy is transmitted from said first system to said second system via said energy path, and wherein settlement for said transmitted energy is determined based upon an amount of energy transmitted as measured by said measuring equipment ~~in each of said first and second countries.~~

46. (Previously Added) The energy and power interchange system of claim 45, wherein said first system is an East Asia system and said second system is an Australia system and said energy path links these systems to a North America system via the Bering Strait, and to a South America system through the Antarctic continent.

47. (Currently Amended) The energy and power interchange system according to claim 45,

wherein, in said first country, said energy source used by said energy generator and said transmitted energy amount are controlled in response to said energy amount measured by said measuring equipment ~~in each of said first and second countries,~~ and

wherein energy is transmitted from said first country to said second country in response to a requirement of said second country.

48. (Previously Added) The energy and power interchange system according to claim 45, wherein each portion of said energy path is selected from a group consisting of an alternating current system, a direct current interconnecting system, a pipeline, a transport path and an electric wave path.

49. (Currently Amended) The energy and power interchange method according to claim 45, wherein control parameters of each of said first and second systems including said energy generators are changed and an energy transmitting direction is decided in response to the transmitted energy amount measured by the measuring equipment ~~of each of said first and second countries.~~

50. (Previously Added) The energy and power interchange system according to claim 45, wherein energy is transmitted between said first and second systems depending upon factors including climate and time of day, and

wherein the settlement for the interchanged energy amount is performed by conversion to fuel so as to simplify settlement between various currency systems.

51. (Previously Added) The energy and power interchange system according to claim 45, further comprising interconnection administration equipment which establishes contracts between respective systems and forwards a control command to interchange administration equipment of the respective systems so as to carry out interchange of electric power and wherein said interconnection adjustment equipment receives measurement values of interchanged electric power from the measuring equipment and transmits such information to the interchange administration equipment of the respective systems in order to permit settlement.

52. (Previously Added) The energy and power interchange system according to claim 49, wherein power storage equipment is installed in at least one of said first and second systems and the input and output of power of said power storage equipment is controlled in response to change of power flow rate between systems.

GA 53. (Previously Added) The energy and power interchange system according to claim 49, wherein the first and second systems are located at respective countries which differ in circulating currency, and said energy and power interchange system further includes means for converting currency to a preliminarily decided currency unit based on exchange rate information.

54. (Previously Added) The energy and power interchange system according to claim 45, wherein energy is transferred from the first country to the second country when the second country is at or near peak power consumption requirements and the first country has excess power.

55. (Previously Added) The energy and power interchange system according to claim 49, wherein said first system has electric power of good quality and said second system has electric power of poor quality.

56. (Previously Added) The energy and power interchange system according to claim 38, wherein said first and second systems are located in countries having at least two hours time difference and energy transmitted from said first system

to said second system is controlled using demand estimation data of respective systems.

57. (Previously Added) The energy and power interchange system according to claim 49, wherein an alternating current/direct current converters are provided between each of said first and said systems and said energy path and as information transmission means for transmitting information to control the alternating current/direct current converters, at least one of satellite communication facilities, optical communication facilities, microwave communication facilities and telephone circuit communication facilities is provided and said information transmission means is provided with delay timers.

58. (Previously Added) The energy and power interchange system according to claim 51, wherein said interchange administration equipment carries out said settlement, conclusion of contract or interchange control by considering CO₂ emissions.

59. (Previously Added) The energy and power interchange system according to claim 52, wherein said energy and power

interchange system is provided with a power interchange control equipment that decides operating conditions of said generator and said power storage equipment, wherein interchanged electrical energy between said alternating current systems using at least one of interchangeable electrical energy, electrical energy, load of respective alternating current systems, generated energy, emergency power source and an interchange power command value is decided using at least one of demand information, power generating information, exchange rate information, power generating cost information and power transmission information, and wherein an interchanging power command value is decided based on calculation result of a calculation processing equipment which executes an optimization calculation.

60. (Previously Added) The energy and power interchange method according to claim 49, wherein converted values of cost including energy generating cost and energy transmission cost and converted values of environmental load including generated carbon oxide are obtained based on information measured by said measuring equipment and settlement, conclusion of contract or interchange control is carried out using said converted values.

61. (Previously Added) The energy and power interchange system according to claim 45, wherein said energy and power interchange system includes interconnection adjustment equipment which transmits converted values to respective systems in response to information measured by said measuring equipment, and wherein said converted values are converted values of environmental load including generated carbon oxide gas.

62. (Previously Added) An energy and power interchange system according to claim 45, wherein portions of said energy path are disposed along a transport route of a different kind of energy, and are installed such that some portions are installed under water at a point higher than 1000 meters below sea level.

63. (Previously Added) An energy and power interchange system according to claim 45, wherein the first and second countries differ in language, and said energy and power interchange system further includes means for translating information transmitted between the first and second systems.

64. (Previously Added) The energy and power interchange system according to claim 52, wherein said energy and power interchange system is provided with a power interchange control equipment that decides operating conditions of said generator and said power storage equipment, wherein interchanged electrical energy between said alternating current systems using at least one of power cost, power generating and transmission cost, CO2 emission amount, load balancing index, demand and supply balance index, and power supply; one of a regional reliability index, time zone, and climate is formed as an object function, and wherein an interchanging power command value is decided based on calculation result of a calculation processing equipment which executes an optimization calculation.

65. (Previously Added) The energy and power interchange system according to claim 45, wherein energy is transmitted across the equator.

66. (Previously Added) The energy and power interchange system according to claim 38, wherein energy is transmitted between said first and second systems depending upon factors including climate and time of day, and

wherein the settlement for the transmitted energy amount is performed by conversion to fuel so as to simplify settlement between various currency systems.

67. (Previously Added) The energy and power interchange system according to claim 45, wherein energy is transmitted between said first and second systems depending upon factors including climate and time of day, and

wherein the settlement for the transmitted energy amount is performed by conversion to fuel so as to simplify settlement between various currency systems.
